CONTRIBUTIONS TO A KNOWLEDGE OF THE HYMENOPTERA OF BRAZIL, NO. 5.—VESPIDÆ.

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This paper relates solely to the social wasps, which are, in the present author's opinion, not only distinct in their habits from the solitary species, but differ also in having the middle tibiæ always with two spurs.

In stating the sex of a specimen throughout this paper I have not been quite sure whether certain specimens represented females or workers, and therefore, when the sex represented is other than the male, I have written female, or worker.

I understand it is the intention of Mr. Herbert Smith to contribute a memoir on the nests of these insects of which he has a large number. These are at present stored away in boxes and are unavailable. Therefore, for the descriptions of the nests of the new and other species noted herein those interested must await Mr. Smith's return from South America where he expects to pass two years collecting natural history specimens.

Mischocyttarus labiatus Fabr.

Rio de Janeiro, October, November; Mararu, April; Chapada, March, April; Uacarizal, February; Pedra Branca, April; Santarem. About 50 specimens.

Apoica pallida Oliv.

Rio de Janeiro, November; Chapada, January, April, October; Santarem. Fifteen specimens.

This is quite a variable species the body color running from entirely whitish-yellow to dark brown. The following forms are in the collection:

- 1. Entirely yellowish-white; antennæ white at tip; costal cell clear, wings whitish.
- 2. Yellowish-white, with vertex, dorsulum in part, sutures of thorax, legs, petiole at base, and apical margins of segments obscurely, pale brown; costal cell a little ferruginous, wings whitish.
- 3. Same as No. 2, but with dorsulum entirely brown, which color is well spread out over the entire thorax but in a very pale tint;

abdomen whitish above; costal cell quite ferruginous, the wings not whitish, dark subhyaline.

- 4. Head, thorax, legs and petiole quite brown, the cheeks, pronotum laterally, postscutellum, middle segment apically, and body of abdomen pale yellowish; wings colored as in No. 3.
- 5. Entirely brown; posterior margin of pronotum, two spots on scutellum and postscutellum, apical margin of segments 1-5, and greater part of sixth, yellowish wings as in No. 3. (=arborea?).
- 6. Dark brown, the thorax above black; first abdominal segment narrowly yellow at apex; wings as in No. 3; size large.

It is quite probable that A. virginea and arborea are only varieties of A. pallida.

Synoeca testacea Sauss.

Mararu, April, May; Santarem. Eight specimens.

Synoeca surinama Linné.

A large series from Chapada, January to April, October; Uacarizal, February; Rio de Janeiro, November; Santarem.

Synoeca cyanea Fabr.

Rio de Janeiro, November. Two specimens.

Synoeca azurea Sauss.

One specimen. Chapada, December. In addition to the bluer color and prominent tubercles of petioles this species is peculiar for its small head which is barely as wide as thorax.

The collection also contains a single 3 specimen with the second submarginal cell greatly narrowed above, the distance between the first and second transverso-cubital veins at the top less than that between the recurrent veins on the cubital vein. The head is about as wide as thorax. Otherwise it is very close to surinama.

Polistes Ferreri Sauss.

A large series from Corumbá, Chapada, Santarem and Rio de Janeiro.

Polistes bicolor Lep.

Two specimens. Santarem.

Polistes versicolor Oliv.

About 75 specimens. Benevedes, July; Mararu, April; Rio de Janeiro, October and November; Chapada, April and October; Santarem. The maculation of abdomen varies from a simple yellow

band at apex of first segment to forms with the abdomen almost entirely yellow.

Polistes carnifex Fabr.

Chapada, October, December, January; Rio de Janeiro, November; Corumbá, April; Santarem. Nine specimens.

Polistes ruficornis Sauss.

Chapada, February to April, June. About 35 specimens. The amount of red and black on thorax is variable. The prothorax and scutellum may be either color.

Polistes cinerascens Sauss.

Chapada, February, March, June; Rio de Janeiro, November. Ten specimens.

Polistes pacificus Fabr.

Mararu, April; Santarem. Six specimens.

Polistes acteon Hal.

One specimen. Rio de Janeiro, November.

Polistes subsericeus Sauss.

Sixteen specimens. Chapada, March and December.

Polistes thoracicus n. sp.

Brick red; sides of middle segment, metapleura and mesopleurae sometimes, and four hind coxæ, more or less, black; wings yellowish. The following parts are obscurely yellow, or of a paler tint than most of body: head in front, cheeks, hind margin of pronotum, tegulæ, scutellum, postscutellum, apical margin of segment 1 and 2, and 3-6 entirely yellow.

Q.—Clypeus longer than broad, obtusely angular anteriorly; space between hind ocelli about equal to half that between them and eyes, the latter separated from base of mandibles by a distance equal to the fourth, fifth and half of sixth joints of antennæ; pronotum strongly margined; dorsulum nearly one-quarter longer than broad; middle segment with indistinct transverse striations. Length 16–17 mm.

¥ .- Antennæ longer; striation of middle segment coarser.

Chapada, February to April. Related to *P. carnifex*, but is much smaller, with black sides of thorax, comparatively longer clypeus. It is larger than *P. ruficornis*, of which it might be taken for a variety, and the clypeus is much longer. The coloration is quite constant in the six specimens before me.

Polistes geminatus n. sp.

Head, dorsulum and abdomen black; mouth, antennæ beneath basally, thorax on sides and beneath, legs and base of first segment, reddish-brown; inner and posterior orbits, clypeus at sides and apically, inner margin of mandibles, scape beneath, line on pronotum anteriorly and posteriorly, tegulæ, line on anterior part of scutellum and postscutellum, two broad stripes on middle segment, a small spot near base on each side, spot at sides of scutella, and at top of metapleuræ, stripe on four hind coxæ, apex of middle segment, two spots on first segment of abdomen, its posterior margin, and posterior margin of segments 2 and 3, or 2–4, narrowly, yellow; wings light fuso-hyaline, costal cell somewhat yellowish; femora sometimes striped with yellow.

Q.—Clypeus about as broad as long, obtusely angular anteriorly, rather distinctly punctured; space between hind ocelli equal to nearly two-thirds of that between them and eyes, the space between the latter and base of mandibles not equal to the width of the latter; pronotum margined; dorsulum more than one-quarter longer than broad. Length 14 mm.

Var.—Clypeus entirely black; femora striped with yellow; lateral spot of first segment coalescing with the yellow at apex. Length 13 mm.

Chapada, March. Two specimens. Resembles *P. cinerascens*, but differs in color of wings. In the bi-spotted first segment it seems to have some resemblance to *P. biguttatus*, but that species is quite differently colored, judging from the description.

Polybia fulvofasciata DeG.

Chapada, January, April, September to December. Forty-three specimens.

Polybia fasciata Lep.

Chapada, February, March, June, September, October. About one hundred specimens.

Leipomeles lamellaria Möbius is colored precisely as P. fasciata judging from the description. Are they perhaps identical? P. fasciata is a Polybia, however.

Polybia fastidiosuscula Sauss.

Over 100 specimens. Chapada, April, September to November. Polybia surinamensis Sauss.

Rio de Janeiro (July, November); Mararu (April); Santaren:. Sixteen specimens.

Polybia occidentalis Oliv. (=pygmæa Fabr.).

About 250 specimens of typical occidentalis, and over 60 representing pygmæa Fabr., which I regard as a variety of this species. The large series before me shows that the two supposed species intergrade. Both forms seem to occur in the same localities simultaneously. From Chapada, Santarem and Rio de Janeiro, March, April, September, October.

Quite as large a series of individuals, having the head reddish, is also represented. This form is not distinct as a species from occidentalis. Occurs in the same regions and at same time as typical occidentalis.

Polybia oecodoma Sauss.

Rio de Janeiro and Chapada in November. Six examples.

Polybia scutellaris White.

Chapada, March, October, December. Nearly 100 specimens, of which 90 per cent., represent a variety with the head and part of thorax above, rusty-red.

Polybia pumila Sauss.

About 100 specimens from Chapada and Sebastiæ. March, April, October, November.

Polybia pediculata Sauss.

Chapada, October; Pará, June; Santarem. Over 60 examples.

Polybia rejecta Fabr.

Mararu, April; Chapada, January, April, September, October; Santarem; Sebastiæ, October. About 50 specimens, whose coloration is quite constant.

P. bicolor Smith is evidently synonymous with rejecta.

Polybia Jurinei Sauss.

Over 60 examples, not showing any variation of color. Chapada, January, September, December; Rio de Janeiro, November; Mararu, April; Santarem.

Polybia metathoracica Sauss.

Chapada and Mararu (April); Santarem. Three specimens of the typical form.

Polybia bifasciata Sauss.

Two specimens from Santarem.

Polybia rufidens Sauss.

Two specimens. Corumbá (April); Chapada (May).

Polybia atra Oliv.

Chapada, January, March-June, August, December; Santarem. About 250 examples.

Polybia dimidiata Oliv.

Chapada, January, April, October to December. Thirty-four specimens.

Polybia socialis Sauss.

A single specimen from Rio de Janeiro, November.

Polybia sylveiræ Sauss.

Three specimens, Rio de Janeiro, November. *P. enxius* Smith seems to be identical with *sylveiræ*.

Polybia pallipes Oliv.

The series before me shows that in coloration this species merges from the form figured by Saussure on Pl. XXV (fig. 2) of his work, abdomen brownish or blackish, into the species known as fulvo-fasciata DeGeer. The latter has the wings quite yellow, however, whereas in pallipes they are subhyaline.

About 45 specimens. Chapada, January, March, April, September, October, December: Corumbá, April, May; Pedra Branca, April; Rio de Janeiro, November; Santarem, February.

Polybia vespiceps Sauss.

Sebastiæ, October; Chapada. About 60 specimens.

Polybia liliacea Sauss.

A large series of this species from Chapada, March, April, September, October, December; Mararu, April; Santarem.

Polybia angulata Fabr.

Eleven specimens from Santarem.

Polybia carbonaria Sauss.

There is a single male in the collection from Rio de Janeiro, November, which I doubtfully refer to this species. Saussure described the female only.

Polybia angulicallis Spin.

Two specimens. Santarem.

Polybia lugubris Sauss.

Rio de Janeiro, November. One specimen.

Polybia flavicans Fabr. (=testacea Fabr.).

Mararu, April; Santarem. Eighteen specimens.

Polybia paraensis Sauss.

Same localities as flavicans. Five specimens.

Polybia chrysothorax Licht.

Chapada, January-April, October; Mararu, April; Santarem. About 40 specimens.

Polybia sericea Oliv.

Nearly 200 specimens from various localities. The coloration seems quite constant, no specimens of the variety with "abdomen brunatre," mentioned by Saussure, being present.

Polybia mexicana Sauss.

Four specimens from Rio de Janeiro in November, are perhaps this species, as near as can be judged from the description. The legs are apparently yellower and the body darker than in mexicana, which species, however, is quite variable according to Saussure.

Polybia infernalis Sauss.

Santarem. Two specimens. One has quite distinct abdominal fasciæ.

Polybia emaciata Luc.

Twelve specimens from Mararu, April, and Santarem, agree with the description of this species, except that the dark spot on vertex is wanting.

Polybia sedula Sauss.

Over 75 specimens. Chapada, March, September, October; Mararu, April; Sebastie.

Polybia latior n. sp.

or .—Black, with a silky pile; legs brownish the four hind coxæ striped with yellow, and a narrow yellow stripe on post-scutellum.

Clypeus distinctly broader than long with tolerably strong punctures; ocelli in an equilateral triangle, the space between hind pair equal to considerably more than half that between them and eyes; latter almost reaching mandibles; flagellum subclavate, the first joint about as long as two following united; pronotum short, finely margined; dorsulum fully one-quarter longer than broad; middle segment short, not longer than scutellum and postscutellum, sulcate

down middle, subconcave; petiole of abdomen slender, but broadened from beyond middle, so that it becomes somewhat infundibuliform, in length longer than hind femur; remainder of abdomen ovate; wings brownish basally and in the costal cell, otherwise dark subhyaline, with nervures and stigma brownish; third submarginal cell rhomboidal, higher than long, its outer nervure strongly sinuate. Length 12-13 mm.

Chapada, October. Three specimens. Belongs apparently to Saussure's IV Division My., and is allied to *P. constructor*. Viewed from above the shape of petiole greatly resembles the lower part of a horse's fore leg seen from the front, the swollen portion representing the hoof.

Polybia flavitineta n. sp.

or &.—Black, with a dense silky, brown pile; flagellum, tegulæ and legs from tip of femora, ferruginous brown; a narrow line on pronotum posteriorly, and at apex of petiole, yellowish.

Clypeus a little broader than long, with a few large punctures anteriorly; ocelli in a high triangle, in consequence of the hind pair being much closer than they are to the anterior one; flagellum subclavate, the first joint a little longer than the two following united; eves almost reaching the mandibles; pronotum tolerably well developed above, not margined or ridged; dorsulum broad and short, its length barely one-fifth greater than its width; middle segment short, almost perpendicular, strongly sulcate down middle, and with distinct separated punctures, and silvery pile apically; petiole of abdomen elongate, about as long as hind femur, slender basally and suddenly broadened beyond middle, so that it presents an infundibulate appearance; remainder of abdomen short-ovate; superior wings strongly yellowish anteriorly, otherwise the wings dark subhyaline, nervures and stigma yellowish; second submarginal cell quite triangular: third submarginal rhomboidal, higher than long, distinctly narrowed above, its outer nervure a little curved near the top. Length 14 mm.

Santarem. Two specimens. Allied to *P. lugubris*. In coloration it more closely resembles *P. angulicallis*, but the prothorax is not produced as in that species.

Polybia tinctipennis n. sp.

or y.—Black, with brownish silky pile; legs and tegulæ brown; posterior margins of pronotum and petiole with an obscure narrow, yellow line; superior wings fuscous on basal two-thirds, especially in costal cell with dark nervures, the apical third whitish-yellow, with yellowish nervures and stigma.

Clypeus subcordate, nearly as broad as long, with large scattered punctures throughout; ocelli forming an almost equilateral triangle, the space between hind pair, however, slightly less than that separating them from the anterior one, and not nearly equal to half the distance between them and eyes; the latter not reaching base of mandibles, being separated from them at their closest proximity by a distance nearly equalling the length of fourth antennal joint; pronotum short, finely margined or carinated at the sides anteriorly, but not medially; dorsulum at least one-quarter longer than broad; scutellum, postscutellum and metathorax strongly punctured, all three more or less sulcate down middle, especially the middle segment which has the furrow much broadened apically; sides of thorax strongly punctured; petiole, distinctly punctured, shorter if anything than hind femur, somewhat clavate, being gradually broadened from before the middle, the basal third stem-like; remainder of abdomen cordate; second submarginal cell short, much higher than long and narrowed above; third submarginal rhomboidal, higher than long, somewhat narrowed above, the outer nervure sinuate. Length 13 mm.

Chapada, September and December. Two specimens. Belongs to Saussure's IV Division My. Its resemblance to *P. socialis* is only superficial. The shape of petiole is nearly as in *P. lugubris*, but is more slender.

Polybia chapadæ n. sp.

Q or \$\times.—Ferruginous; body of abdomen, sides of prothorax and mesopleuræ sometimes darker; two broad oblique marks uniting in V-form on front, and the occiput black; antennæ dark above; clypeus, mandibles except tips, inner and posterior orbits, two oblique lines on vertex behind ocelli, lines on pronotum anteriorly and posteriorly, two rather indistinct lines on dorsulum, scutellum and post-scutellum anteriorly, tegulæ, spot at top of meso- and metapleuræ, two broad lines on middle segment, four anterior coxæ beneath, stripe on hind coxæ, spot at tip of all femora, (sometimes obscure), and apical margin of abdominal segments 1-3 or 1-6, or the first only, yellowish.

Clypeus about as broad as long, not distinctly punctured; ocelli forming an equilateral triangle, the space between hind pair a little

less than that between them and eyes; the latter almost reaching mandibles; first joint of flagellum as long as the second, third and most of fourth; pronotum short, margined; dorsulum more than one-quarter longer than broad; middle segment broadly channelled, down middle almost concave; petiole of abdomen about as long as hind femur, elongate, tolerably slender, broadened gradually and gently from beyond middle; remainder of abdomen ovate; wings dark subhyaline, faintly yellowish in the costal cell; nervures and stigma brownish; third submarginal higher than long, the outer nervure curved, and just before its junction with the cubital nervure, angulate. Length 15 mm.

Chapada, February. Three examples. Belongs to Saussure's V, Division Kappa, and is apparently allied to *P. raphigastra*. The petiole is more broadened at apex than in *P. surinamensis*, and the

body quite robust.

Polybia gorytoides ${\rm n.\ sp.}$

Q or §.—Blackish or dark brown; head, except a broad transverse stripe on vertex, thorax entirely on sides and beneath, pronotum except an oblique stripe on each side, two stripes on dorsulum, scutellum and postscutellum except posterior margins, middle segment except in longitudinal furrow, legs (tarsi darker), abdomen entirely beneath, first dorsal segment at sides and apex, apical margin of dorsals 2-6, yellow, that on second dorsal extending to base at sides.

Clypeus broader than long, with a few large punctures, its fore margin sharply angular; ocelli forming a rather high triangle, the space between hind pair less than that between them and anterior one, and not equal to half the distance between them and eyes; the latter almost reaching base of mandibles; vertex distinctly punctured; flagellum clavate, the first joint about as long as the two following united; pronotum indistinctly margined; dorsulum punctured, but not very strongly, about one-fifth longer than broad; middle segment broadly furrowed, rather flat, and sloping evenly from base to apex; first abdominal segment subcampanulate, much shorter than hind femur, not much longer than first hind tarsal joint; remainder of abdomen subpyriform, very broad at base, acute at apex; wings subhyaline, very faintly yellowish along costa; nervures and stigma yellowish; third submarginal cell longer than high, twice as long, or more, than second, a little narrowed above, the outer nervure gently sinuated. Length 101 mm.

Var.—Reddish-testaceous, with the yellow marking obscure, the stripe on dorsulum wanting; black spot on vertex quite prominent.

Chapada, September; Santarem. Twelve specimens. Belongs perhaps to Saussure's II, Division Iota, but the third submarginal cell is longer than high; otherwise it agrees with the characteristics of that group. It has a strong superficial resemblance to some species of *Gorytes*. The variety mentioned comes from Santarem.

Polybia suffusa n. sp.

Q or §.—Black; scape and pedicel, pronotum more or less, body of abdomen, and legs in part, obscure ferruginous-brown; mandibles, fore margin of clypeus, spot on inner orbits at base of clypeus and at bottom of cheeks, pronotum anteriorly and posteriorly, two spots on mesopleura, one at top of metapleura, scutellum, post-scutellum, middle segment except on sides, base of petiole and a fascia at its apex which is extended along the sides, and a fascia at apex of segments 2–5, yellow; head and thorax with a golden pile, not very dense, however.

Clypeus broader than long, not distinctly punctured, its fore margin acutely angulate; front with shallow punctures; occili form a high triangle; eyes barely reaching base of mandibles, at any rate they are more distant than in *P. pediculata*, to which suffusa is related; flagellum clavate, the first joint nearly as long as three following united; dorsulum about as broad as long; middle segment with shallow punctures, strongly furrowed down middle, more so than in pediculata; petiole, if anything, slightly longer than hind femur, slender, strongly dentate behind middle, and a little dilated from the teeth to apex; remainder of abdomen cordate; wings subhyaline, strongly iridescent; nervures and stigma dark brown; third submarginal longer than high, three times as long as second, slightly narrowed above, the outer nervure sinuous. Length 7-8 mm.

Chapada, May and October. About 60 specimens. This species is closely allied to *P. pediculata*, but differs in coloration, less triangular second submarginal, and generally more slender form. The petiole is shaped almost precisely as in *pediculata*.

Polybia frontalis n. sp.

Q or \(\forall \), and \(\delta \cdots - \text{Black} \); front, clypeus and most of scape, reddish-yellow; posterior orbits, narrow line on pronotum anteriorly and posteriorly, spot beneath wings, postscutellum except apex, tips of all femora, spot at tips of four anterior tibiæ, and a narrow line,

sometimes wanting at apex of petiole, pale yellow; mandibles reddish.

Clypeus with shallow punctures, broader than long, obtusely angular anteriorly; ocelli forming a low triangle in consequence of the hind pair being nearly twice as far apart as they are from the anterior one, the distance between the hind pair about equal to that between them and eyes; the latter almost reaching base of mandibles; flagellum subclavate, the first joint about as long as the following two united; pronotum short, margined; dorsulum barely longer than broad, middle segment short, rather concave, with a narrow raised line down middle on each side of which there is a furrow; petiole shorter than hind femur, elongate and tolerably stout, gradually enlarged from near base, much more slender than in P. socialis; remainder of abdomen subovate; legs robust; wings subhyaline throughout; nervures and stigma dark; third submarginal cell higher than long, the outer nervure angulate before its junction with the cubital vein. Length 11–12 mm.

 \mathcal{E} .—Colored like \mathcal{P} or \mathcal{V} , but having the usual sexual differences; smaller clypeus, narrower front, antennæ longer and acuminate at tip; otherwise agreeing with the preceding description.

Chapada, October and November. Ten females (workers?), one male. Allied to *P. socialis*, but the more slender petiole excludes it from Saussure's II, Division Iota. These divisions are not natural, however.

Polybia marginata n. sp.

Q or \(\forall \)—Thorax, petiole and legs reddish-brown, the first mentioned with thin golden pile; head, and body of abdomen black; sides of thorax and petiole apically dusky; line on inner orbits below emargination, on posterior orbits above, line on pronotum anteriorly and posteriorly, fore margin of postscutellum, two lines on middle segment, spot on four hind coxe, and at tip of all femora, pale yellow.

Head subquadrate, not very transverse; ocelli forming an equilateral triangle; first joint of flagellum nearly as long as the three following united; pronotum sharply margined anteriorly; dorsulum about one-fifth longer than broad; middle segment concave medially; petiole elongate, slender, broadened from beyond middle, altogether more slender than *P. sericea*, in length greater, if anything, than hind femur; wings dark, paler apically, black in costal cell; breadth

of second and third submarginal cells at the top nearly equal. Length 15 mm.

Chapada, September, October. Four specimens. Is the exact counterpart of *P. sericea* superficially, but differs by the squarer head, margined pronotum, more slender petiole, shorter dorsulum, etc.

Tatua morio Fabr.

Chapada, January, November, December; Santarem. About 40 specimens.

Chartergus apicalis Fabr.

Over 60 specimens. Sebastiæ, October; Chapada, October to December; Corumbá and Mararu, April.

Chartergus Smithii Sauss.

One example. Corumbá, April.

Chartergus ater Sauss.

Two specimens. Chapada, January; Santarem, April.

Chartergus chartarius Oliv.

Chapada, March and October; Santarem. Nearly 50 specimens.

Chartergus globiventris Sauss.

Sebastiæ, October. Two specimens (9 &). The male closely resembles the female, but has the clypeus entirely, a spot on scape beneath, spot on all femora beneath near apex, and all the coxæ beneath, pale yellow; the clypeus is considerably smaller.

Chartergus fasciatus n. sp.

Q or §.—Black; head below insertion of antennæ, cheeks, scape, pronotum except a blotch on each side, scutellum anteriorly, middle segment entirely, mesopleuræ except medially, legs including coxæ, a fascia on segments 1-3 at apex, segments 4-6 and ventrals entirely, yellow; flagellum black above, reddish-yellow beneath.

Differs from *C. Smithii* other than in coloration, as follows: dorsulum shorter, nearly as broad as long; scutellum and postscutellum smaller, the latter not tuberculate medially; the wings are colored as in *Smithii*, but the superiors have a pale band crossing them and including the space between the apex of the costal, base of second discoidal, and base of third submarginal cells, the veins included in this region, and the stigma are whitish-yellow, elsewhere dark; neuration nearly as in *Smithii*. Length $7\frac{1}{2}$ mm.

Mararu, April. One specimen.

Chartergus griseus n. sp.

or §.—Black; head in front, cheeks, scape and pedicel of antennæ, orange; tibiæ and tarsi more or less brown, the anteriors palest; thorax and abdomen with a thin griseus pubescence, more obvious on middle segment; posterior margin of pronotum yellowish medially as a rule.

Clypeus obtusely angulate; flagellum scarcely clavate; ocelli forming a high triangle, the space between hind pair much less than that between them and the anterior one; pronotum with a tolerably long dorsal surface, much longer than in *C. ater*, sharply margined anteriorly, and, with the dorsulum, rather coarsely punctured, remainder of thorax similarly punctured; postscutellum not tuberculate; middle segment shallowly concave; abdomen ovate; wings subhyaline, the anterior margin of the superiors, including the marginal cell, fuscous; nervures and stigma black; second submarginal triangular, much narrowed above, the third rhomboidal narrowed above, the outer nervure nearly straight. Length $7\frac{1}{2}$ mm.

Mararu, April; Santarem. Nine specimens.

CHARTERGINUS gen. nov.

Head flat, transverse, the development of cheeks varying in the different species, but less than in Chartergus. Front long and rather Eyes long and narrow, practically reaching base of man-Mandibles slender, contracted medially, with four distinct teeth on inner margin ranging from the apex, which is not truncated as in Chartergus or Polybia, but shaped somewhat as in Nectarinia. Maxillary palpi 6-jointed, the first and last joints longest; labial palpi 4-jointed, the basal joint longest, the second and third shortest. Clypeus truncate or acuminate at tip; antennæ inserted at base of clypeus. Thorax truncate anteriorly, shaped throughout as in Chartergus, the scutellum scarcely raised above the level of postscutellum, and not emarginate. Middle segment concave, the sides not angularly produced or spinose; tibial spurs 1-2-2. Abdomen with first segment campanulate, practically sessile with second segment, with a basal petiole varying in length in the different species, in some species almost wanting. Neuration of wings as in Chartergus.

Type: C. fulvus.

Charterginus is intermediate between Chartergus and Nectarinia. It is more closely allied to the former genus, from which it differs by the slender mandibles, flatter head and differently shaped first abdominal segment.

Charterginus fulvus n. sp.

Q or §.—Entirely fulvous; a broad stripe across vertex, flagellum above, and sometimes the suture between dorsulum and scutellum and a spot on second dorsal segment medially, black or blackish; clypeus paler yellow.

Clypeus much longer than broad, with large, shallow, scattered punctures, its fore margin broadly truncate; vertex with strong, separated punctures; ocelli forming an equilateral triangle, the space between hind pair about one-third less than that between them and eyes, the latter almost reaching base of manibles; flagellum clavate, first joint longer than second, but distinctly shorter than the combined length of second and third; occiput sharply margined posteriorly; pronotum medially with a distinct surface, transversely margined on each side; thorax strongly punctured; dorsulum a little longer than broad; postscutellum with a distinct tubercle medially; middle segment strongly swollen on each side posteriorly, not compressed; abdomen strongly punctured, first segment campanulate, with a basal petiole nearly as long as first hind tarsal joint, transversely impressed before apical margin; wings subhyaline, black along costal margin, as are also the nervures and stigma; second submarginal cell triangular, narrowed more than two-thirds above; third submarginal longer than high, subquadrate, narrowed about one quarter above. Length 7-8 mm.

Mararu, April; Santarem. Eight specimens. Judging from description, C. fulvus must greatly resemble Chartergus colobopterus, but the dorsulum is not black as in that species, which is apparently a typical Chartergus, with short first abdominal segment.

Charterginus fuscatus n. sp.

or §.—Black, with brownish pile; line on inner orbits below emargination, continued along the sides of clypeus to apex, and narrower line on posterior orbits, pale yellow; first dorsal segment at apex narrowly and obscurely yellowish.

Head very flat, the cheeks scarcely developed; clypeus longer than broad, pyriform, acuminate at apex, finely punctured; front with shallow punctures; ocelli almost forming a curved line, the hind pair separated by a much greater distance than they are from the anterior one, and almost equal to that between them and eyes; the latter narrow and long, fully reaching base of mandibles; thorax strongly punctured; pronotum very sharply margined anteriorly, with a distinct medial surface; dorsulum nearly one-quarter longer than broad; postscutellum not tuberculate, triangular, the posterior margin extended; middle segment strongly concave, more or less compressed laterally; abdomen strongly punctured, the first segment short, campanulate, the basal petiole scarcely evident; wings subhyaline, black in the costal cell; third submarginal much longer than high, narrowed about one-third above, the outer nervure strongly sinuate; nervures and stigma black. Length 8 mm.

Mararu, April. One specimen.

Charterginus cinctellus n. sp.

Q or §.—Black; line on inner orbits below emargination, extending along sides of clypeus to apex, narrow line on posterior orbits, two short curved lines (sometimes wanting) on vertex, line on pronotum anteriorly, and a short one on posterior margin just before tegulæ, anterior margin of scutellum and postscutellum, and a fascia at apex of abdominal segments 1–5, pale yellow; scape reddish beneath.

Head about as in fuscatus; middle segment not as strongly margined, shorter medially; dorsulum shorter, not one-quarter longer than broad; postscutellum similar, but not as triangular; first dorsal segment short, campanulate, the basal petiole quite short, but still more evident than in C. fuscatus; wings subhyaline throughout; nervures and stigma black; third submarginal cell a little higher than long, narrowed about one-fifth above. Length 7 mm.

Chapada, October. Seven specimens. Has a superficial resemblance to *Chartergus chartarius*, but is smaller.

Nectarinia Lecheguana Latr.

About 50 specimens. Chapada, January, June, September to December; Corumbá, March; Santarem,

Nectarinia bilineolata Spin.

Chapada, January, March, May, November, December. Thirty-five specimens.

Nectarinia Augusti Sauss.

Chapada, same months as bilineolata; Santarem. Twenty-five specimens.

Nectarinia scutellata Spin.

Chapada, December. One example.